GreenCOM Summary Report
Sustainable Cities Delivery Order

PCE-Q-12-93-00069-01 (Task Order #12)
Submitted: October 15, 1998

GreenCOM's Experience in Supporting the Provision of Basic Services to Poor Neighborhoods

1. Type of activity:

Two studies in community and target audience assessments of behaviors, attitudes and practices; strategy, message and materials development; and evaluation of environmental education and communication activities in the urban sector.

Geographical area: Haiti and Morocco

Dates of activity: September 22, 1997 - March 2, 1998

Team composition:

Haiti:

Researchers:	Orlando Hernandez Lonna Shafritz
Communication Specialist:	Peter Gottert

Morocco:

Researcher:	Orlando Hernandez Ahmed Bouziane
Communication and Gender Specialist:	Mona Grieser

2. Objective of the activity:

Haiti: Conduct research to understand barriers and facilitators associated with water procurement, use and disposal practices.
Develop strategy for community participation in the distribution of water to residents of poor neighborhoods.

Morocco: Enhance the communication, coordination and collaboration between local government, community-based organizations and the populations to improve garbage collection in two poor neighborhoods around the city of Fez.

3. Activities performed:

The contractor coordinated and helped interpret the findings of a study conducted in Haiti by a local partner (Centres pour le Developpement et la Sante),and developed a plan for community participation in managing water distribution as well as a communication plan targeting residents of Cite Soleil residents. The research was conducted between December 7, 1995 and March 15, 1996, and the community participation and communication plans were developed between April 15-30, 1996.

In Morocco, the contractor implemented a workshop to design an action plan to improve waste collection services in two neighborhoods in the Community of Zouagha on the outskirts of Fez. An evaluation to determine the extent to which the action plan had been implemented was conducted under this Delivery Order 18 months after the action plan had been developed.

4. Summary of Activities

See Attachment 1.

5. Future Actions

The evaluation of the activity implemented in Fez suggested that the following actions could be supported.

In Zouagha Haut:

- Improvement of major waste transfer point
- Development of sports field
- Improvement of forested area
- Development of playground for children within the perimeter of the neighborhood
- Purchase of two wagons
- Purchase of uniforms and equipment for waste collectors

In Zouagha Bas:

- Development of sports field
- Development of playground for children within the perimeter of the neighborhood
- Development of green area
- Improvement of collection points
- Purchase of two wagons
- Purchase of uniforms and equipment for waste collectors

In Fez, a workshop should be held to restart the project again.

6. Scopes of Work

Haiti (See Attachment 2).

Morocco (See Attachment 3).

7. Status of Expenses as of September 30, 1998

(See Attachment 4)

Attachment 1

GreenCOM Project
Sustainable Cities

Integrated Summary of Activities, Findings and Lessons Learned

Introduction

As part of the Sustainable Cities Delivery Order, GreenCOM implemented two activities to support the provision of basic services to poor neighborhoods. One was implemented in Cité Soleil on the outskirts of Port-au-Prince, Haiti in connection with the management of a water distribution system. The other was implemented in the community of Zouagha on the outskirts of Fez, Morocco in connection with the improvement of solid waste collection.

GreenCOM participated in the implementation of these activities because USAID and their field counterparts in each of these sites wished to influence the behaviors of program beneficiaries through promotional interventions via different possible media (e.g., interpersonal, mass media, etc.). In both countries, GreenCOM was expected to elaborate such interventions. In Haiti, the original behaviors to be addressed by the promotional communication intervention included: 1) payment for safe water, and 2) abstention from illegally tapping the distribution system. In Morocco, the promotional intervention was expected to get neighborhood residents to make use of existing waste collection services, particularly to: 1) comply with waste collection schedules, and 2) refrain from disposing of waste in clandestine dump sites. Upon conception, each one of the activities included two components: a research component and a communication strategy design component. The research component would help identify the barriers and facilitating factors behind the behaviors of interest. The information collected was to be used in the design of the communication interventions. Despite these similarities at the design stage, an important difference between the two activities as originally planned was that the activity in Morocco, in addition to the research and design components, also had an evaluation component. In neither case, however, was there funding for the implementation of promotional activities per se. The activities implemented under this Delivery Order were conducted with the involvement of personnel from the Environmental Health Project (EHP). EHP took the lead in Haiti and GreenCOM did so in Morocco.

In Haiti, a classical social marketing approach was used. GreenCOM provided technical assistance to consult the population about the barriers and enabling factors connected with behaviors of interest. A communication and social mobilization strategy was developed using the information gathered. That mobilization strategy was based on the principle that neighborhood residents needed to take part in the management of the water distribution system and not be mere water consumers. The participation of neighborhood residents became a necessity in the implementation phase.

In Morocco a different approach was used as neighborhood participation was included from the beginning. Stakeholders designed an action plan to tackle to improve waste collection services.

They conducted research to help design that action plan. Since there was no funding for a promotional intervention, GreenCOM believed that it was necessary to use an approach that would permit and sustain behavior change. GreenCOM assumed that by involving communities in program design, residents would gain ownership of the activities proposed. It also assumed that through such ownership, residents would adopt suggested practices and not only promote them among their peers but also make sure that others would also adopt them either by reinforcement or sanction. As part of the process to gain ownership, stakeholders in Fez were in charge of consulting the population about the barriers and facilitators of behaviors of interest. Participatory research can enhance community members' understanding of their own reality thus better equipping them to have needed information to set priorities and negotiate development programs with other stakeholders and partners. Stakeholder participation in program design was also important because waste collection services in general include different actors. At a minimum, it includes neighborhood residents, municipal officers, and elected officials. As a result, the behaviors that need to be changed may not be limited to one specific actor. All actors may require to adopt new practices. Stakeholder participation in program design allows all actors to determine in a bargaining fashion which behaviors are possible. Programs designed in this way are thus based on both a systems approach and reality, allowing stakeholders to make commitments collectively agreed upon.

In the case of Haiti, GreenCOM sought the participation of the population in the management of the water distribution system in order to allow the system to be sustainable over the long term. In this case, the community participation component of the activity sought to: 1) create a sense of ownership of the water supply system by the community so residents would have a stake in its success; 2) place significant responsibility for managing water and sanitation services on the community, thus reducing the management burden on a central Water District office, and 3) protect the system against illegal connections and other abuses. It was assumed by both GreenCOM and EHP that these factors would contribute to the sustainability of the water distribution system.

In the case of Morocco, GreenCOM and its counterparts sought to set the basis for a lasting partnership between different stakeholders. It was believed that the development of such a partnership would contribute to sustainable waste collection services. Neighborhood associations were a new phenomenon in Morocco when GreenCOM initiated its activities in that country. The community was in fact represented in the stakeholders meetings through these associations locally known as *'amicales.'* GreenCOM assumed that the support provided to *'amicales'* would help develop civil society in a country beginning to be receptive to democratic institutions. Inviting '*amicales'* to present their point of view in the organization of municipal services legitimizes them and makes service providers more receptive to their clientele. GreenCOM and its Moroccan counterparts assumed that a solid partnership between civil society and the administration would facilitate urban development in general over the long term.

What follows is a description of the activities at each site and a presentation of the lessons learned through this exercise.

The Haitian Experience

In 1995, a potable water system was being constructed in Cité Soleil, north of Port-au-Prince, with a population of approximately 240,000. Cité Soleil residents are crowded into an area of approximately 2 square kilometers, built on landfill and subject to frequent flooding. The water system under construction consisted of a water tank at the main entrance to the neighborhood and a network of 51 public fountains distributed throughout different quarters of the city. The water was going to carried by underground pipes from a well located seven kilometers away from the slum. It was anticipated that the water would be treated at the water tank.

Program planners anticipated that the system would be managed by an autonomous Water Management and Sanitation Authority (WMSA) with no connection to the public sector. The new system had to be financed by payments made by the users based on their level of water consumption. WMSA was expected to help with the disposal of human waste, proposing to slum residents environmentally-sound technical solutions adapted to their socio-economic possibilities, their socio-cultural preferences, and the physical characteristics of the area where Cité Soleil is situated.

EHP participated in the elaboration of a plan to set up WMSA and make it operational. GreenCOM was asked to prepare sub-plans for communication and social mobilization of the residents in support of the water distribution system. To develop this plan, GreenCOM and its local counterpart Les Centres pour le Développement et la Santé (CDS) conducted qualitative research to determine existing practices around the procurement, payment and handling of water and the disposal of grey water, human waste, and solid waste. Male and female residents, water-reservoir owners, and mobile water vendors were interviewed through 15 focus groups. The main results of this research can be summarized as follows.

Water Procurement. In 1995, residents were getting their water mainly from mobile water vendors supplied by reservoir owners, who in turn were supplied by water trucks. Others went directly to reservoir owners to get their water. Many residents also collected rain water. Some households living in the Cité Soleil social housing projects received water from the municipal water distribution system (CAMEP) when water flowed in the pipes. Due to the unreliability of the service, CAMEP bills usually went unpaid. In addition, residents living along the pipes illegally tapped the CAMEP system. A 5 to 7-gallon bucket of water cost 1.5 to 2 gourdes when purchased from local vendors.

Within families living in Cité Soleil, it is everyone's responsibility to fetch water (when not purchased from street vendors). Yet, in families where there is no servant it is generally children and women who do it. Men get water for their own needs, but seldom for domestic needs. A trip to get water takes about 30 minutes and more than one trip per day may be needed. Waiting in line to get water may take up to one hour when water is scarce. Families purchase 4 to 7 buckets of water per day for drinking, cooking, and general household uses. When families do laundry, twice as much water is required, though it is also common to use rain water for washing clothes.

Water may be reused several times. Water used to rinse laundry is used for bathing, cleaning the house, washing shoes, and watering the street or the house.

Water Quality and Storage. Water is generally considered unsafe. Residents generally believe that reservoirs are not regularly cleaned and may be situated near latrines. Furthermore, water obtained from vendors has a bad smell and taste and may contain particles. The most common way of purifying water is by adding bleach or lemon. Some boil it before giving water to children. Water is generally stored in buckets. Covering water containers is not common practice. Residents make a clear connection between safe water and general well being. By the same token, they associate unsafe water to several common gastro-intestinal diseases.

Disposal of Grey Water. Grey water is thrown out in front of the house into the nearby canals. Several disputes arise regularly between residents over outside disposal of grey water as it associated with several disease such as malaria, skin problems and fever.

Disposal of Human Waste. Fewer than half of the residents have latrines in their houses. The rest defecate in open spaces or where it is possible. During field visits, children were observed defecating in areas where solid waste is dumped. In some cases, these areas are near public facilities such as schools and churches.

Public Showers and Laundry Facilities. There are a few places to bathe for a fee. Study participants liked to the idea of constructing public showers and would be willing to use them for a reasonable fee. One of the major advantages of public showers perceived by study participants was that more water would be available at home for other purposes and less mud from grey water would accumulate near their homes. Public showers, however, were more likely to be used by men and children than by women because they may lack necessary privacy for women. There was also a positive reaction to public laundry facilities as they would eliminate the time and effort involved in fetching water to do the laundry at home.

Community Participation in the Water Distribution Company. The idea of organizing a company to distribute water in the neighborhood was well accepted by study participants. It was believed that one important consequence of the existence of this company would be the easy access to safer water at a moderate price for all residents. The preference was for a private instead of a public company. Study participants argued in favor of water fountains being managed by residents through management committees composed of residents either elected or chosen by the community. The argument being that if the community perceived the system to be theirs, there would be less illegal tapping and more protection of the system. Study participants suggested that fountain committees and community associations could participate in the surveillance of the water distribution system.

GreenCOM proposed that messages should reach three audiences: residents, reservoir owners and other water bearers, and community organizations. Furthermore, GreenCOM proposed that the communication campaign be implemented both by promoters hired temporarily and by volunteers who would convey messages to the residents about the following topics:

the new water system will distribute safe water mainly for drinking and cooking;
when, where and how much water will be available and how much it will cost;
how water fountains will operate; how to keep water safe at home; and
how residents can participate in maintaining the new drinking water system.

GreenCOM proposed that the main medium should be interpersonal communication. GreenCOM also suggested that local committees (e.g., comités de fontaines) be set up to manage each fountain and that such committees be formed with the assistance of associations that lie within the area served by the fountain. It was expected that each fountain committee would select a fountain operator who would keep the fountain open for 12 hours a day, collect the money from the water sales, turn in money from sales daily to the water district, and report major repairs needed. Fountain committees were given the freedom to decide how much fountain operators would be paid. EHP suggested that members of fountain committees also receive a monthly income in order to have an incentive to take their responsibility seriously. The plan further suggested that committees should be organized by sectors to facilitate their coordination (e.g., comités de zone).

The operational plan prepared by EHP suggested that a demonstration project for solid waste collection be implemented. The plan suggested that one solid waste collection team be organized for each one of the seven districts of Cité Soleil, but that the demonstration project be limited to one such district. The team, made up of 20 laborers and a crew chief, would be provided the basic equipment to operate. The teams would be managed by a zonal committee similar to those suggested for the management of the distribution of water. It was assumed that there would be no user fee and that all collection and disposal services would be paid from water revenues.

Communal laundry facilities and communal latrine upgrades were also included in the EHP plan as demonstration projects.

Evaluation. The water district began its operations in April 1997. The organization in charge of managing the water district was named CADEPA (Comité pour l'Alimentation, la Distribution d'Eau Potable et l'Assainissement). A progress report prepared by an EHP evaluation team that visited the project area in September 1997 indicated that CADEPA had been successful in forming 41 fountain committees and seven zonal committees, and in training 65 fountain keepers identified by the fountain committees. The number of fountain keepers exceeded that of fountains because fountains are open more than eight hours per day and more than five days per week. The report also indicated that CADEPA had generated over a three-month period prior to the evaluation team visit all the revenue necessary to pay all salaries and O&M costs for the water supply system.

The evaluation also pointed out that unaccounted-for water has been averaging 32% since the system began operations in March 1977. This amount of water includes water loss to leaks and illegal connections. Demonstrating community ownership of the system, fountain committee

members in some instances have reported to CADEPA newly installed illegal connections. When this has occurred, CADEPA has been able to physically disconnect the households responsible for the illegal connections. However, they do not always remain disconnected as families have in some occasions re-established the illegal connection. Stronger action is required on the part of CADEPA, and either fines or police intervention may need to be considered to reduce recidivism.

CADEPA also needs to pay attention to the operation of fountain committees. The evaluation suggested that over time, the enthusiasm observed at the beginning of the implementation of the project may dwindle down. Consequently, two community relations staff will be hired to provide ongoing backstopping to the community structures which serve as a backbone to CADEPA operations.

Solid waste collection projects were organized in six districts and implemented over a two-month period. On average, the amount of waste collected was 1 1/3 m^3 per worker per week. This is the amount that should be collected per worker per day. The low performance is the result of poor supervision on the part of CADEPA. In addition, appropriate arrangements need to be made so that the waste collected within Cité Soleil is adequately transported to the landfill outside of the neighborhood. To be able to be have solid waste collection projects operational in seven districts, CADEPA needs to sell 175,000 gallons of water per day. At the time of the evaluation, it was selling 63,000 gallons per day. Solid waste collection services need to be scaled back until they are affordable. Households need to dispose of their waste at established collection points, and CADEPA must find ways of reducing the monthly cost of equipment used for solid waste collection. Furthermore, the zonal committee as a management structure has not been fully tested.

At the time of the evaluation, seven latrines were under construction. They were expected to be under the management of the zonal committees. However, not enough progress had been made on the community latrines to assess their operation and viability.

The Moroccan Experience

GreenCOM provided support to the Municipality of Zouagha in the Province of Fez by organizing and facilitating a participatory workshop to design an action plan to improve waste collection in two poor neighborhoods. The Environmental Health Project provided the framework of analysis in the workshop by discussing the current waste-collection chains operating in the two neighborhoods of concern, and provided technical guidance in waste collection throughout the process. GreenCOM provided assistance to monitor the implementation of the action plan.

The participatory workshop was considered a way to explore mechanisms to develop partnerships between stakeholders that can lead to sustainable urban development programs. The workshop brought together most of the concerned stakeholders, and was structured to allow participants to establish a frank and open dialogue around solid waste, build partnerships, and

produce an action plan to improve solid-waste collection. Furthermore, through this process stakeholders developed their capacity to make collective decisions and participate in local governance, skills that may be used in addressing other problems affecting the urban environment in general. The only stakeholders not present at the workshop, at the express desire of the country collaborators, were women from the community as well as solid-waste collectors. Believing this to be a major deficiency, GreenCOM deliberately structured workshop activities so that their absence would be prominent, and so their view would, in the end, be present.

The workshop was conceived as a 10-day exercise that included activities organized in three phases: problem analysis, field research to obtain missing information, and elaboration of an action plan. Overlaid on the three phases were deliberate process efforts to breakdown hostility, suspicion, and negativism among participants, foster collaborative modes of behavior, and encourage and nurture new cooperative thinking and trust.

In the first phase, participants discuss collection chains that exist in the districts of interest. Efforts to develop new collegial relationships and jump start the process of dialogue included exercises pointing out both the need for participation and the superior results of participation. Special rules governing group dynamics were created to achieve this goal. The resulting analysis created an ambiance of openness and constructive self-criticism. Several possible solutions to the technical problems were proposed. Discussions took place in small groups in order to facilitate all participants expressing their views, but individual expression was also encouraged. This approach enabled participants to put aside the traditional hierarchy present in Moroccan society between officials and citizens. Further, discussion dynamics allowed an exchange between municipal officials and residents so that each stakeholder would understand the others' views.

During the research phase, complementary information was obtained, particularly from housewives and garbage collectors, about solid-waste collection services or lack thereof. Workshop participants observed group interviews conducted by facilitators and qualitative researchers to learn what male and female residents thought about issues such as: pick-up schedules, advantages and disadvantages of waste transfer points, and quality and payment of services provided by the municipality or neighborhood associations. Separate focus groups were held with neighborhood women to verify male perceptions, obtain women's knowledge and attitudes about the system, and suggest how the system could be improved. Interestingly, other stakeholders were not hostile about efforts to include women, but expressed bewilderment as to why women needed to be included. The common perception is that women do not understand larger community systems and would have nothing to contribute.

During the last phase of the workshop, research findings were discussed and an action plan was elaborated that deliberately included a mechanism to institutionalize the stakeholder dialogue begun at the workshop. The action plan had five major components:

- project management;
- improvement of the collection system;

- reinforcement of the structures of civil society;
- communication and education; and
- evaluation and follow-up.

Project management refers to the creation of a working committee to coordinate the different actions to be undertaken. That working committee will include representatives from all the stakeholders present in the workshop: residents, elected municipal officials, and officials from the Ministry of the Interior. A female social promoter and a local project advisor will also be members of this committee.

The component dealing with the improvement of the collection system includes actions such as:

- improvement of transfer points,
- revision of routes and schedules,
- revision of personnel distribution and improvement of working conditions for trash collectors, maintenance and improvements of collection bins,
- management of vehicles, and
- training for personnel in charge of trash collection trucks and equipment.

The component dealing with the reinforcement of the structures of civil society includes:

- the creation of a position to manage social promotion among women within the municipality to develop programs and activities enhancing women's contribution to decision-making in programs affecting the community.
- the training of members of the neighborhood associations in communication, leadership, management and planning, and
- the funding of certain actions that neighborhood associations can quickly implement.

The communication and education component includes:

- the development of social networks for women and training for women in development issues
- the creation of a position of communication/education officer within the municipality to develop the communication/education activities and to serve as a liaison with the media and companies that may produce educational materials.

Evaluation. The evaluation conducted in 1998 paid attention to three major questions.

- To what extent did neighborhood associations and the municipality become more participatory in their actions and programs?
- Are neighborhoods cleaner and do they have the necessary resources devoted to making sure that they remain clean?
- What is the status of neighborhood associations and what role do they play in solving neighborhood problems?

The evaluation concluded that the neighborhood associations organized cleaning campaigns and

neighbors were mobilized to clean illegal dump sites a few weeks after the workshop. Some neighborhood residents made sure that the illegal dump sites were kept clean, and there were some limited instances of residents informing local authorities of families disposing of waste in prohibited areas. These events are most likely connected to a number of events and contextual circumstances: the participatory workshop, the general interest in living in cleaner areas, and a royal mandate to have cleaner cities that was issued about three months after the participatory workshop was held.

As a result of municipal elections in the summer of 1997, residents elected the president of the neighborhood association in Zouagha Bas and the secretary of its counterpart in Zouagha Haut to the municipal council. The election of these leaders to the council changed local dynamics and permitted a different interpretation of what social participation means and how it is practiced. While in Zouagha Bas it has meant the mobilization of local resources to deal with some neighborhood problems whether or not they are related to the environment. In Zouagha Haut it has meant attempting to mobilize resources mainly outside of the neighborhood with the same objectives in mind. At a minimum, it can be argued that there has been a different adoption of the participatory approach.

The evaluation also indicated that the municipal government had a surplus of financial resources available in 1998, most likely from unspent monies from FY 97. As a result, the newly elected neighborhood association leaders have succeeded in obtaining some of these funds to be used to buy waste collection equipment adapted to the physical characteristics of both Zouagha Bas and Zouagha Haut. The struggle has been crucial as other council members suggested that the funds be used for other purposes, including the purchase of official vehicles for the council members. The newly elected municipal councilmen from the neighborhoods affected by GreenCOM's intervention have also succeeded in getting a program sponsored by the central government, called the Work Promotion Program, to pay the salaries of the waste collectors previously paid by neighborhood residents, thereby eliminating the payment of two waste collection fees, one to the municipality and one to the neighborhood association. The waste collectors are in charge of taking the waste from the household to waste collection points visited by the municipality's waste collection equipment. An important aspect of the fact that residents no longer have to pay for the transport of waste from the household to waste transfer points is that more families are getting their waste collected. This is particularly true in Zouagha Haut where waste collectors have claimed that their routes have become more dense and that they are working longer hours than before. With the tips paid by some families, their monthly salaries may have increased from 700 dirhams in 1996 to between 1000-1200 dirhams in 1998. There may be delays, however, in monthly payment of salaries and on one occasion they went three consecutive months without getting paid.

The mobilization of local resources to solve urban development problems is present in Zouagha Bas and absent in Zouagha Haut. In addition to leveraging for government funds for the payment of the services described earlier, the elected representative of Zouagha Bas defined a clear strategy to improve waste collection services in his neighborhood. He argues that in addition to having the salaries of waste collectors paid by the Work Promotion Program, two

other important actions need to be undertaken. One was to buy a wagon and horses to collect the waste in the neighborhood. And two was to improve the access to the neighborhood by constructing a small bridge that would permit the municipal waste truck to come into the neighborhood during at least part of the rainy season. His strategy consisted in getting residents to come up with some or all of the costs, and when necessary obtain complementary funding from the municipality. "Working through examples", as he puts it, is one of the most rewarding strategies. For this elected official, he is acting according to the principles that he learned in the USAID-sponsored workshop on waste collection: "Help yourself that God will help you." This principle seems to coincide with a self-reliant way of life and characteristic of rural settings, and in fact most Zouagha Bas residents are rural migrants. The strategy adopted by the elected councilman has paid off. He bought the wagon on credit and has asked the more well-off residents in Zouagha Bas to contribute monthly payments to help out with waste collection services. In addition, he was able to generate about one third of the funds needed to build the small bridge. The municipality was able to fund the difference and the bridge was built over three week-ends before the beginning of the rainy season in 1997.

As far as the cleanliness of the neighborhoods is concerned, comparative data for 1996 and 1998 for the Commune of Zouagha as a whole indicated that the number of households covered by the municipal solid waste collection system increased from 78% to 84% during that period. It is hard to determine from these data what are the implications for the two neighborhoods where the Sustainable Cities Initiative was implemented. From a simple count of illegal dumpsites and the amount of waste accumulated at those sites, the condition seems to be better in Zouagha Bas than in Zouagha Haut. In Zouagha Haut, the municipal waste collection truck has a more restricted route than before, and this truck comes to the neighborhood less frequently than in 1996. Furthermore, the physical condition of the waste cans and carts used by the waste collectors seem to be in worse condition than before. Yet, in Zouagha Bas, the waste is now packaged in cereal bags at the source allowing for its transformation to be more efficient and the municipal truck comes by on a regular basis to empty the container placed at the entrance of the neighborhood.

As far as the *amicales* are concerned, they seem to be inactive. For the municipal government and the local representatives of the Ministry of the Interior, the newly elected councilmen from the neighborhoods are the only neighborhood representatives with whom they interact. Although some residents still mix up *amicale* and elected councilman, the evaluation suggested that the weight of the mobilization of resources outside or inside the neighborhood falls on the shoulders of the elected councilmen. Although the basis for a partnership was created, that partnership has not yet formed as individuals replaced associations in promoting development efforts within the neighborhoods.

Conclusions

Evaluations are an important element of the interventions, whether funded directly though the Delivery Order or through some other mechanisms. It helps to point out which are the aspects of the interventions that can be replicated and which merit improvement. The evaluations conducted of these two interventions allow us to formulate the following conclusions.

1. Funding to accompany action plans designed.

Participation in the development of an action plan may lead to ownership of that plan and raise motivation for the involvement in plan implementation. However, any initiative will disappear if appropriate actions are not undertaken to support the fuller implementation of the designed plan. As in the case of Morocco, momentum was lost in part because no funds were made available to carry out simple mini-projects for which local funding was not immediately available. The design of action plans in a participatory fashion should also require specific commitments from stakeholders including who funds and who implements components of such a plan.

2. Sustainability

There are three aspects of sustainability that our interventions touched upon: 1) long-lasting *partnerships between government and civil society* leading to mutual collaboration in the design and implementation of urban development activities; 2) sustainable behaviors on the part of *program beneficiaries* supporting the permanent provision of services and abiding to established rules and regulations about those services; and 3) the *financial sustainability of institutions* in charge of service provision. All of these aspects are inter-related, and the level of inter-relatedness depends on a number of factors, particularly the type of program implemented.

One of the major conclusions of the activities implemented both in Haiti and in Morocco is that participation in program design is a necessary but insufficient factor contributing to the different aspects of sustainability mentioned above. For example, partnerships between government and civil society need not only be initiated. They need to be supported and nurtured. In the case of Haiti, the zonal and fountain committees formed to handle the management of water distribution will not remain stable. Members will lose interest in continuous involvement, may move away or may opt for other urban development and even professional struggles to engage in. Support to new members as they come on board is a necessity. And that is why, the staff of CADEPA had to be expanded to include two staff members to handle the relationships with the community structures. In the case of Morocco, the main civil partner for the government, the *amicales*, disappeared. During the workshop, *amicale* representatives requested that support be provided to the *amicales* in order to solidify and expand their constituencies so as to be able to collect contributions and operate efficiently. Although this was an activity included in the action plan designed by stakeholders, no action was implemented in this regard. Without this type of support, the *amicales* could not last. The fact that *amicales* had been recently organized in the two neighborhoods of interest in Fez made the need for institutional support for their development even more crucial. The type of support that community structures in general may need will vary depending on how well developed they are when participating in interventions as those implemented by GreenCOM.

Promotional activities targeting the general public may continue to be needed after an action plan has been designed in a participatory way and begins to be implemented with community involvement. The fact that illegal connections are occurring in Haiti and that there is a need to

combat them and gain public support for the respect of established procedures is sufficient evidence of the importance of promoting the behaviors expected of the population at large. In Morocco, as well, although there were social controls exerted on individuals disposing of their waste in illegal dumpsites, little by little these dumpsites began to reappear weeks after the neighborhood cleaning campaigns had been implemented by the *amicales*. Cues and reminders of expected behaviors are important. Appropriate ways of reinforcing neighborhood residents for performing the expected behaviors may also be needed. Reinforcement and sanctions adopted to sustain adopted behaviors over time must obviously be sensitive to the cultural context in which the behaviors are being performed.

3. Local leadership and tradition

Participation needs to be open to all. In the case of Morocco, there was opposition on the part of the male leaders in the neighborhoods to have women involved in the discussions of the waste-collection problems and in defining appropriate solutions for them. But GreenCOM sought women's involvement by consulting female residents about their perceptions of the municipal waste-collection services. Women's inputs were invaluable and made great contributions to the design of an action plan that took into account aspects of how the waste-collection program operated **S** aspects which would have been ignored had the women not expressed their points of view. Future interventions of the sort need to insure appropriate participation from all concerned male and female stakeholders. The ways in which that participation takes place needs to be culturally sensitive as well.

Attachment 2

GreenCOM's Scope of Work
Haiti Urban Pollution Project: External Technical Assistance
Revised: October 9, 1995

I - BACKGROUND

Environmental degradation and environmental health problems are a major constraint to economic development in Haiti. The USAID environmental strategy plan for Haiti identified population shifts in Haiti from predominantly rural to urban locations. It was found that most of the urbanization and attendant pollution will occur in cities and towns in the already fragile coastal zones of the country.

Haiti is the poorest nation in the western hemisphere. A lack of fertile land, (due largely to deforestation), the political instability of the past nine years, repressions, embargoes and droughts have created an exodus from the countryside to the urban areas. The shift from a predominantly rural country to a more urbanized society creates new environmental concerns and risks for the economic development of the country. Water and sanitation coverage is one of the lowest in the Americas and has been badly affected by the political crisis since October 1991. This is particularly evident in the slums of Port Au Prince where there is currently no potable water and no collection and disposal of solid waste, wastewater and human waste. Urban pollution poses a major threat to coastal and marine environment, pollution of aquifers and coastal waters. Equally important, these condition create serious health hazards for the inhabitants of marginal areas of Port Au Prince. The incidence of diarrheal disease is very high. Respiratory infections, acute diarrheal diseases and intestinal parasites represent the main cause of morbidity and mortality among 0-5 year olds. The provision of urban environmental services, particularly for the poor and disadvantaged, is a priority issue for USAID/Haiti and RHUDO/CAR.

Cite Soleil is a large, informal settlement located on a man-made landfill peninsula which extends into the Bay of Gonaives. Here, about 180,000 residents live without piped water, sewer systems or solid waste services. Most residents purchase water from vendors and use on-site latrines, rudimentary septic systems or practice open air defecation. UNDP is financing the construction of a water supply system to serve the community, and the expected water usage will increase as this water system comes on-line. However, no provision has been made for the collection and disposal of household waste (sewage, greywater or solid waste) which will have a severe environmental impact if ignored. In Cite Soleil, 30% of pediatric admissions are due to dehydration from diarrhea. Every child under 5 has an average of one episode of diarrhea per month and hospital case mortality can be as high as 25%.

The Haiti Urban Pollution Prevention Project was selected for funding under the LAC Bureau's Environmental Initiative for the Americas Program. It proposes to establish an autonomous water and environmental sanitation organization in Cite Soleil. This project will be implemented by Centres pour le Development et la Sante (CDS), a Haitian NGO with 18 months funding from

USAID/Haiti channelled through EHP. CDS has been operating successfully in Haiti for twenty years, pioneering in providing health and education services to the poor. In addition, USAID/Haiti has requested the Environmental Health Project (EHP), the GreenCOM Project and, the Cooperative Housing Foundation (CHF) to provide external technical assistance to CDS.

In early September 1995, planning and coordination meetings were held in Port Au Prince, Haiti. Participants included USAID/Haiti, RHUDO/CAR, USAID/G/PHN/HN/EH, CDS, EHP, CHF and GreenCOM. Based on these meetings the following SOW clarifies roles and responsibilities and describes the technical assistance tasks to be carried out by EHP, GreenCOM and CHF. For the sake of clarity and understanding the technical assistance context, CDS's role and tasks are also generally described but a separate, more detailed SOW for CDS is attached.

II - OBJECTIVE OF HAITI URBAN POLLUTION PROJECT

The objective of the Haiti Urban Pollution Project is to establish a sustainable mechanism to reduce environmental pollution impacts on the people of Cite Soleil and their natural resources.

III - PURPOSE OF THIS ACTIVITY

The purpose of this technical assistance activity is to:

1. develop a financial plan to operate and maintain the UNDP funded water supply system that is currently under construction and due to be completed by May 1996;

2. develop an infrastructure plan to address the additional water and environmental sanitation needs of Cite Soleil and;

3. develop a plan for the creation of an autonomous district to manage the water and environmental sanitation services of Cite Soleil over the long term.

The overall approach to the development of the Plan will be:

- data collection
- data analysis
- development of a preliminary comprehensive plan to be completed after approximately 4 months
- implement the preliminary plan - including demonstration projects - to be completed in approximately 12 months
- finalize comprehensive plan based on lessons learned to be completed towards the end of the 18 month period

- market overall plan and specific components to other donors on an ongoing basis

EHP, CHF and GreenCOM will forge a professional relationship and partnership with the administrative and technical staff of CDS. All the institutions are committed to effective institutional coordination and to working in an interdisciplinary manner and ensuring that the final product presents an integrated strategy. Supervision and monitoring will also be provided by USAID/Haiti and RHUDO/CAR on a regular basis.

GreenCOM's Task in the Project (Number 7)

Develop a human behavior and community mobilization plan to be implemented by the District. Conduct qualitative research to examine how residents dispose of human, solid and liquid waste and possibilities for modifying such behavior. Determine the social and cultural practices of community residents and the programs necessary to change human behavior in managing solid waste, human waste and waste water, which are necessary to reach the objectives of this project and provide for sustainability. The plan will detail how best to modify customs and practices to reduce the level and effects of human, solid and liquid waste. The plan will take into consideration the practices of people that can protect and conserve the environment and related infrastructure, the methodologies to change such behavior and the media and educational materials required to support the overall plan.

This plan should also present a strategy to mobilize the community to support and participate in the implementation, construction, and management of the system, and to bring groups within CDS to work together with the administration of the water and environmental sanitation district will be developed. Specific elements of this task include:

a. Guide the Director of CDS's Research and Social Promotion Unit in the design and conduct of two formative qualitative studies.

   The first study will concentrate on a description of practices related to the disposal of greywater, human waste, and solid waste. It will deal with factors that would motivate the population to maintain water quality, pay for cleaner water and prevent illegal water tapping.

   The information collected through the first study will contribute to determining technical, management and educational options for household disposal of waste water, human and solid waste. Consequently, the second study will explore the constraints that the population will encounter in adopting the technologies that the program would promote.

b. Assist in the interpretation of research results to draw implications for a behavior change strategy.

c. Identify the guiding concept(s) and messages of the communication strategy and the messages that can be promoted.

d. Identify the different communication channels that can be used to implement the communication/mobilization strategy

e. Pre-test the best way to express the main messages.

f. Suggest a strategy and timeline for the production of materials needed to support the communication and mobilization strategy.

g. Suggest how to pilot test the communication strategy and review the results of the pilot test to suggest corrections to improve efficiency.

This task 7 will be carried out by GreenCOM consultants with assistance by CDS staff and local Haitian consultants hired by CDS. CDS will make available the Director of the Unit of Research and Social Promotion. He will be made available to conduct the formative research needed in support of the communications campaign. He will also be made available to participate in the pre-test of the concepts and messages as well as to direct the evaluation of the pilot testing of the communication intervention in case that is one of the pilot activities implemented. The Director of the Unit of Research and Social Promotion will participate in the review of the communication and mobilization plan that is proposed. This may require up to 9 weeks of involvement by CDS. CDS will be responsible for writing research reports and for translating them into English.

Attachment 3

A Pilot Project for Consciousness-raising and Community Participation to Improve Solid Waste Collection and Disposal in Peri-urban Neighborhoods of Fes

Revised Scope of Work* and Work Plan
May 23,1996

* The current document is founded on two documents: the Sustainable Cities Proposal dated 1/23/96 prepared by USAID/Morocco and Moroccan counterparts; and a preliminary pilot project scope of work prepared by GreenCOM The two documents have been combined, modified, and supplemented based on the results ofa planning mission (5/15-5/24) conducted by Rick Bossi(GreenCOM) and JeffHughes (EHP). Mission activities included site visits and numerous discussions with a wide range ofstakeholders ranging from the Wali to individuals living in low income tenement housing.

I. Background and Objectives

Solid waste management in Fes is a complex system comprised of interconnected human, institutional, and technological components. The system involves many different actors including national government officials, locally elected officials, skilled and unskilled workers, community based organizations, the informal private sector, households, and individuals.

The efficiency of the overall system depends on how the different actors work together --communication, cooperation, and coordination are essential. While.the technological aspects of solid waste management are important, non-technological considerations are often the deciding factors in determining whether solid waste management is environmentally, economically and institutionally sustainable. As a result, efforts to improve the working relationships and understanding of stakeholders involved in the solid waste management process can often lead to as important economic and public health benefits as investments in new equipment and technology.

When asked to identify the major obstacles to improving solid waste management, national and local solid waste professionals in Morocco routinely identify “citizen behavior”, “household attitudes,” and “household practices” as paramount. Modifying inappropriate behavior or, as is sometimes necessary, adapting solid waste systems to existing behavior and attitudes requires a solid understanding of citizen attitudes and perceptions. Improving the participation of the population must in ttrrn take into account the population's relation to other important actors.

Figure 1 illustrates the desired relationship between the municipality, community based organizations (CBOs), and households/individuals in the solid waste management system in Fes. The 3 actors operate in an overall framework defined by the Waliya and other existing institutional, environmental; and economic settings. The solid waste management system breaks down when the actions between the 3 actors do not have any commonalities.

The overlapping areas of the figure demonstrate the desired interconnectedness of many stakeholders in the overall process. This project is not designed to address the entire solid waste management system, but rather will focus on the elements of the system relating to household/individual roles and actions, and those municipal and community based organization actions directly relating to household participation in the process.

The general objectives of the project include:

- Improving garbage collection in the target zone of intervention.
- Enhancing the communication, coordination, and collaboration between local government, community-based organizations and the population.

II. Activity Description

The overall purpose of this activity is to develop a participatory, voluntary, and action-based process that will lead to improved solid waste collection and disposal efforts through enhanced participation and collaboration between citizens, community-based organizations (CBOs) and municipal government stakeholders. Special attention will be given to recognizing the roles of women and young people in the solid waste collection, handling, and disposal system. If successful, such a process will replicable in other urban and peri-urban settings throughout Morocco.

This pilot project will take place in the peri-urban communities of Zouagha Haut and Zouagha Bas (in the Zouagha commune), just outside of metropolitan Fes. These communities were selected because of the recent establishment of community-based organizations (CBOs) there. Fes is also associated with other USMD activities including the Morocco HG program.

More specifically, the pilot project will involve the following five steps:

1. problem definition, development of a common vision, and consensus building roundtable;

2. a rapid, qualitative study of attitudes, knowledge, beliefs, practices, and behaviors regarding solid waste collection and disposal of key stakeholder groups and community segments;

3. a workshop to present the research findings; collectively analyze the results; reach consensus on the action steps of each principal actor (i.e., the municipality, CBOs and certain segments of the general population; and reach agreement on selected performance indicators;

4. execution of actions by each actor (over several months to one year; and

5. monitor and evaluate both actor performance and change in solid waste collection and disposal system (e.g., any reductions in illegal dumping, littering, increases in compliance with appropriate disposal practices).

Institutional stakeholders and beneficiaries are to be involved in the design. and evaluation of each step of the project. A description of each step follows.

Step 1: Developing a common vision and consensus building: roundtable

Objectives: The objectives of this step are three-fold:

- Develop a common vision and consensus among different stakeholder representatives and key actors on the overall purpose of their collaboration and the specific objectives of the pilot project;

- With the help of a facilitator, identif~r mutually agreed upon priority problems, opportunities, resources and information needs/gaps associated with the solid waste collection and disposal system in Zouagha Haut and Bas; and

- Begin to develop effective working relationships between stakeholders and key actors, including the definition of individual roles, responsibilities, and contributed resources.

How this will be Accomplished: The vehicle for accomplishing these objectives will be through a roundtable meeting to be held at a convenient location in Fes over a 2-3 day period. The GreenCOMJ'EHP Team will facilitate this roundtable and manage all associated logistics with the support of local consultants (a local Research SpecialistlPilot Project Coordinator and a local Environmental Engineer). It is anticipated that one of the participating institutions in Fes will furnish the venue (Site) of the event.

Stakeholders and Key Actors: will include, but not be limited to representatives of the following institutions and organizations: the Wali, the Municipal Council of Zouagha, the Governor of Fes, Parliamentary representative from Fes, ANHI, municipal technical departments, CBOs of Zouagha Haut and Bas, and others as appropriate (notably women, leaders of youth associations operating in the commune, mosque construction committees). The overall number of participants should not exceed 15-20. To participate, attendance for the entire 2-3 day period will be required.

Expected results: It is anticipated that the primary outcome of the roundtable will be the establishment of a new collaborative working arrangement among the various stakeholders and key actors as well as shared responsibility in addressing common yet specific municipal level problems such as improving solid waste collection and disposal. The workshop should also lead to a consensus concerning the general types of information that need to be collected and analyzed

in order to determine appropriate interventions.

Step 2: Rapid Assessments of Stakeholder and Key Actor Knowledge, Attitudes, Beliefs, Practices (Behaviors) of Solid Waste Collection and Disposal

Objectives: Specifically, the objective of this step is to conduct qualitative research with different stakeholders and community segments involved in solid waste chain in Zouagha Haut and Bas to:

- Create better understanding among stakeholders and key actors of the different knowledge, attitudes, beliefs and practices (KABP) associated with solid waste collection and disposal.

- Design specific, tailored and more effective responses and actions that each stakeholder and key actor can contribute or undertake to improve the existing solid waste problem in Zouagha Haut and Bas.

How this will be Accomplished: With the active participation and involvement of a local researcher and information collection team as well as selected members of the stakeholders and key actors group, GreenCOM/EHP will design and implement a rapid, low cost qualitative research KABP study. As women and children are household managers of solid waste, all data will be gender disaggregated. This rapid collection of information will take place over a 10 day period immediately following the close of the roundtable discussion. Results will be analyzed and presented in a follow-up workshop (Step 3).

Concurrently, limited data on the quantitative (volume of solid waste produced) and other technical information will be collected. Data to be collected will include, but not be limited to:

- actual environmental conditions in the commune
- the nature of solid waste (residential, industrial) formal and informal collection systems operating
- commune and public agency intervention (organization of municipal services, human,material and financial resources)
- CBOs, formal and informal; evaluation of the current situation, flinctioning and activities of the entities, capacity for development

As a cost and time saving measure, the general study design will be jointly developed by the GreenCOM Research Director in Washington, DC and concurrently the local Researcher based in Fes through fax, telephone, and internet correspondence, prior to the formal start of this pilot project (Step 1). Input also will be provided by the GreenCOM Community Participation Specialist and the EHP Environmental Engineer at a meeting to be held at GreenCOM offices in Washington, DC.

Short training sessions (1-3 hours each) on effective communication strategy design, methods, techniques, and materials development targeting women and youth may be offered to selected municipal agency and CBO staff while the qualitative research phase is underway. The training sessions will be led by the GreenCOM Community Participation Specialist, who is also a recognized communication and gender expert. This may be possible given that this the Community Participation Specialist will be playing a supporting role during Step 2. Actual training session content and topics will be determined after completion of the roundtable.

Key Participants: The key participants of this step will be the GreenCOM Research Director and Community Participation Specialist, EHP Environmental Engineer, a local Research Specialist/Pilot Project Coordinator, an information collection team (perhaps 3-5 assistants), a local Environmental Engineer, and selected community, CBO, and municipal representatives.

Expected Results: The anticipated outcome of this phase will be a clearer picture of both the perceived and actual barriers and benefits of the different stakeholders and key actors to adopt sustainable, appropriate, and environmentally benign behaviors associated with solid waste collection and disposal. The survey will also lead to the identification of potential low or no cost interventions/actions that will improve solid waste management.

Step 3: Research Findings and Activity Development Workshop

Objectives: The specific objective of this step is threefold:

- Collectively review and analyze the findings and implications of the KABP research with all the stakeholders and key actors;
- Reach consensus on modest, practical, and simple actions that each key actor can take and thereby contribute to the improve of the solid waste collection and disposal problem in Zouagha Haut and Bas; and
- Joint development and agreement on human and technical performance indicators that can be used to measure progress toward improving environmental quality and conditions.

How this will be Accomplished: A two-three day workshop will be held in Fes to discuss the findings of the research conducted during the previous step and (qualitative research finding) and explore and agree upon those priority actions (i.e., practical, simple and concrete behaviors, practices and technical options) available to each key actor can undertake, based on the availability and capacities of their respective financial, human, and capital resources. In addition, performance indicators (both behavioral and technical, e.g., tons of waste removed from neighborhood. A management or operational structure also will be discussed to ensure each actor is working in good faith to implement its respective actions

Stakeholders and Key Actors: All participants of the roundtable (Step 1) will be reassembled for this workshop. This workshop will be facilitated by the GreenCOM Community Participation

Specialist, with support from the GreenCOM Research Director, the local Research Specialist, and the EHP Environmental Engineer.

Expected Results: The anticipated outcome of this step will be clear articulation of expectations by and consensus among the respective key actors about how they will collaborate together to work toward achieving the common goal of improving solid waste collection and disposal. This will be achieved by the development of social contracts between the three key actor about the specific actions each will take to address the common problem of solid waste collection and disposal in Zouagha Haut and Bas. The use of social contracts will ensure goodwill, accountability and transparency among each of the respective actors.

Step 4: Execution of Specific Actions

Objectives: The specific objective of this step will be to perform the various actions agreed upon in the previous stage.

How this will be Accomplished: Each key actor will be left to implement their own set of actions. Periodic (bimonthly) meetings will be required among representatives of the municipal government, CBOs, and community to jointly review problems and seek common, realistic solutions, assess progress or setbacks, and propose any modifications or changes to the previously agreed upon actions. This phase of the pilot project will last for an 8-12 month period. Again, particular attention will be given to implementing actions that address the specific needs, resources, education; constraints, etc. faced by women and youth. The local Research Specialist/Pilot Project Coordinator will attend these meetings and facilitate them as needed. Feedback will be provided to GreenCOM/EHP by the local Research Specialist/Pilot Project Coordinator via fax or telephone.

If funding permits, specific training may be provided to key actor representatives during this step to improve performance.

Key Actors: The municipal government, CBOs, and community residents of Zouagha Haut and Bas. The local Research Specialist/Pilot Project Coordinator will be responsible for facilitating periodic meetings and monitoring progress or setbacks.

Expected Results: It is anticipated that the participatory process of problem identification and joint collaboration will be sustained by the end of this 8-12 month period. Moreover, it is hoped that each key actor will see the benefit of working collectively to achieve a common goal and pledge to continue doing so indefinitely.

Step 5: Pilot Project Performance Monitoring and Evaluation

Objectives: The specific objectives of this step are to:

- Measure any change in stakeholder and key actor (community segments, CBOs, and municipal government) practices and behaviors regarding solid waste collection and disposal;
- Record any observable, physical evidence of reductions in solid waste littering, clandestine dumping, and overall volume produced;
- Provide information to stakeholders on the results of their actions which can in turn be used to improve future collaboration efforts;
- Document lessons learned that can be disseminated to other areas of Fes and throughout the country

How this will be Accomplished: Eight-twelve months alter the invention phase was launched, a modest-level performance evaluation will be conducted that will be a combination of rapid survey of stakeholders and key actors and observation of conditions in Zouagha Haut and Bas. Data will be presented analyzed and presented in a summary report. In addition, a presentation of the performance evaluation will be made to the stakeholders and key actors at a half-day presentation at a yet to be determined date and location in Fes. It is important to note that as part of the intervention process, stakeholders will design project monitoring into the project as to provide a continual record of project performance and to guide the project during implementation.

Stakeholders and Key Actors: The local Researcher with direction provided by the GreenCOM Research Director from Washington, DC, will be the lead person for this step. As needed, he will mobilize any in-kind support from selected representatives of the participating CBOs and municipal government to perform this task. Regional and national actors such as the Wali, ANHI, DCL, and the Ministry of the Environment will participate in this phase to facilitate replication of successful approaches and activities to other areas of the country.

Expected Results: The anticipated result will be observable changes in the behaviors and practices of selected community segments, the CB Os, and responsible municipal agencies in the way they participate in the various stages of the solid waste collection and disposal chain in Zouagha Haut and Bas, that will contribute to the overall improvement of the quality of life for commune residents.

III. Reports

The contractor will be expected to submit reports to USAID/Morocco at the completion of each step in the process. The last report will serve as an evaluation of the pilot project, including report on indicators. Reports should be in English and French, with 5 copies of each submitted, within 30 days of completion of each step.

Early June 1996

GreenCOM(EHP Team prepare SOWs for local consultants and get USAID Contracting Officer Approval

July 1996 Convene 1-2 day GreenCOM/EHP planning session and technical debriefing in Washington, DC in preparation of Roundtable (Step 1)

GreenCOM Research Director & local researcher develop tentative data collection strategy and instruments with input from EHP Solid Waste Specialist/Environmental Engineer

Local consultant makes all necessary arrangements and associated logistics of roundtable

Mid-August 1996

Convene 2-3 day Roundtable of key actors (Step 1)

Conduct research (Step 2)

Early September 1996

Convene 2-3 day workshop to present research findings; define future actions, roles, and responsibilities, and develop performance indicators (Step 3)

Launch actions (Step 4)

Attachment 4